PREPAREDNESS

INTRODUCTION

Preparedness planning is the foundation of an effective fire management program. Thorough planning will enable managers to easily and efficiently meet other fire management objectives. For example, the step-up plan should enable the park to have the right resources at the right place at the right time.

As fire danger increases, the level of preparedness must increase. Preparedness actions are preplanned and delineated by staffing classes in the step-up plan for each park and will be completed prior to each fire season.

The preparedness planning and activities addressed under this chapter include:

1. Fire-related data processing systems
2. Fire season delineation
3. Step-up planning
4. Pre-season risk analysis
5. Pre-attack planning
6. Supplies, materials and equipment
7. Fire season readiness reviews
8. Emergency (preparedness) operations
9. Pre-positioning resources

Servicewide preparedness program objectives are stated in this guideline. Park preparedness objectives are stated in each park's fire management plan.

RESPONSIBILITIES

Fire Management Program Center/Regional Responsibilities. The Fire Management Program Center and regions will:

1. Provide emergency assistance and dispatch capability for fire overhead and provide supplies and equipment for inter-park, inter-region and interagency situations as specified in Interagency, National, and Regional Mobilization Plans.

2. Allocate funding to accomplish Servicewide priorities.

3. Facilitate training beyond that identified as park-level responsibilities.

4. Maintain interagency contacts, (including but not limited to MAC Groups and Geographic Area Coordinating Group), and provide for necessary regional and national interagency agreements.

Park Responsibilities. Each park with a fire program will:

1. Incorporate preparedness considerations in its fire management plan.

2. Maintain a cache of supplies, materials, and equipment sufficient to meet normal fire year requirements.

3. Maintain fully qualified personnel commensurate with the normal fire year management workload.

4. Operate fire-related data processing systems to enter, archive, retrieve and interpret information for fire management planning and operations.

5. Prepare a step-up plan based on staffing classes derived from NFDRS.

6. Maintain record systems, weather data, maps and other related information.

7. Prepare pre-season risk analyses.

8. Provide a dispatch system for fire management resources within and adjacent to the park.

9. Maintain detection and initial attack capabilities.

10. Prepare appropriate pre-attack plans including local mobilization guides.

11. Develop and maintain agreements to coordinate interagency operations.

PREPAREDNESS PLANNING

Preparedness planning must be conducted and coordinated at all organizational levels for optimum preparedness. Preparedness activities are funded by normal park operating funds and/or FIREPRO.

Fire-related Data Processing Systems. The National Fire Danger Rating System (NFDRS) is the process by which relative fire danger indices are assigned. Fire weather information is integrated with fuel and topographic information to arrive at various fire danger indices.

NFDRS can be operated through the Weather Information Management System (WIMS) (http://fire.nifc.nps.gov/webterm/fire.asp). Some other fire information and fire behavior modeling systems may be helpful in assessing conditions, some of these include NFDRSPC, nomograms, BEHAVE, RERAP, FARSITE, etc.(http://www.law.cornell.edu/uscode/33/1251.html)

FIREFAMILY (http://www.law.cornell.edu/uscode/33/1251.html)
is a computer program that uses historic weather data to display current fire potential. The three major routines of FIREFAMILY are FIRDAT, SEASON, and FIRINF. These programs should be used in preparedness planning and as an aid in determining severity conditions.

Fire Season Delineation. Fire seasons in parks are based on FIREPRO analyses, which evaluates a 10-year history of fire occurrence. Regional fire seasons will be defined as the composite of their parks' fire seasons.

Step-up Planning.

1. Staffing Classes. Step-up plans are designed to direct incremental preparedness actions in response to increasing fire danger. Those actions are delineated by "staffing classes." Each step-up plan should address the five staffing classes (1, low; 2, moderate; 3, high; 4, very high; and 5, extreme) and the responding planned actions that are intended to mitigate those fire danger conditions. Several assessment tools are available to measure fire danger.

   The staffing classes described escalating responses that are pre-approved in the fire management plan. The mitigating actions are designed to enhance the parks fire management capability in these short periods (one burning period, Forth of July or other pre-identified events) where normal staffing cannot meet initial attack, prevention or detection needs. The difference between step-up and severity is that step-up actions are established in the park unit fire management plan, and implemented by the unit when those pre-identified conditions are experienced. Severity is a longer duration condition that cannot be adequately dealt with under normal staffing such as a killing frost converting live fuel to dead fuel or drought conditions. Severity is discussed later in this chapter.

   Staffing Class Break points:

   Parks should chose one or more of the following to calculate their staffing class condition:

   - NFDRS (Burning Index, Energy Release Component, Fire Spread Component or other)
   - Drought Index (Keetch-Byram, Palmer or other)
   - Live Fuel Moisture (calculated or sampled)
   - Canadian Fire Danger Rating System

- Soil Moisture

Parks can use any recognized science based system to measure fire danger and potential and are encouraged to apply the best “fit” for their needs.

2. Fuel Models. Selection of fuel models is critical in developing an effective step-up plan. Historical factors which should be considered in selecting a fuel model include:

   a. Proportion of ignitions by fuel model

   b. Values to be protected by fuel model

   c. Fire behavior by fuel model

   d. Proposed (in fire management plan) appropriate management strategies (i.e. the full spectrum of strategic options, from monitoring to full, intensive suppression) by fuel model and location.

      The integration of these factors should result in selection of the fuel model, which creates the greatest fire management problem.

      For example, a park may have 80% of its fire ignitions in fuel model "XX" with low values at risk and low intensity fire behavior. Another fuel model, "YY", with higher values at risk, experiences 20% of fire ignitions, and these ignitions have been more difficult to suppress. Fuel model "YY" should be selected for the step-up plan.

3. Sample Plans. Exhibit 1 provides an example of a completed step-up plan. The step-up plan must include provisions for detection in staffing classes 4 and 5.

4. Funding. ONPS funds and FIREPRO funds provide support for routine preparedness actions conducted in staffing classes 1 through 3. Funding of staffing class 4 and 5 activities is discussed below in the section of this chapter on emergency preparedness.

Preseason Risk Analysis. Preseason risk analysis is the procedure for analyzing present and future fire danger for any given area.

The preseason risk analysis is a process that reviews current and predicted weather and fuels information, compares this information with historic weather and fuels records, and predicts the upcoming fire season's severity and duration. It is important to incorporate drought indices into this assessment.

Preseason risk analysis information can be used to modify step-up and pre-attack plans. It

provides the basis for actions such as pre-positioning critical resources, requesting additional funding, or modifying memoranda of understanding (MOU) to meet anticipated needs.

Exhibit 2 contains a sample comparison chart with selected indicators, which could be evaluated. Each park should select those indicators, which are most useful in predicting fire season severity and duration in its area.

Park risk analyses should be compiled at the regional office to determine the predicted fire season severity within the region, and then forwarded to the Fire Management Program Center for use in determining Servicewide fire preparedness needs.

Risk analysis is an on-going process. It should be reviewed periodically and revised when significant changes in key indicators occur. All reviews of risk analysis, even if no changes are made, should be documented.

Pre-attack Planning. The pre-attack plan is a comprehensive compilation of essential fire management information, which must be available in the park's fire management and/or dispatch offices.

The pre-attack plan should not be included in the body of the fire management plan, but held out for a quick reference guide as incidents occur. The plan should be reviewed annually prior to the fire season, and revised as necessary. Exhibit 3 provides a list of considerations for a pre-attack plan.

To be effective, the pre-attack plan should include sensitive resource information on matters such as the specific locations of cultural sites and certain endangered species. Fire personnel must ensure that sensitive information in the plan is protected from inappropriate dissemination.

Pre-attack plans will include evaluations of structures and other cultural improvements to ensure that their values (and hazards) are taken into consideration. Criteria and procedures for evacuations and closures will also be addressed. Exhibit 4 contains a sample closure/evacuation plan.

PREPAREDNESS ACTIVITIES

Supplies, Materials and Equipment. Each park will maintain a cache or system of caches with inventories adequate to meet the needs of a normal fire season. The numbers, types, and distribution of materials in caches will be dictated by the staffing, fuels and fire history of the park. The inventory and location of these items should be included in the pre-attack plan. Normal stocking standards for initial and extended attack caches should be developed for each park. Excess and unneeded supplies and equipment should be transferred to other parks or interagency caches. If standards are not currently being met, funding should be requested to

bring caches up to standards.

Fire Season Readiness Reviews. Each park will conduct an annual preseason fire readiness inspection, which will address detection, communication, dispatch, and response capabilities. Fire readiness inspections will be conducted to determine whether the park's current training levels, equipment inventories, and organizational structure meet the standards described in the approved fire management plan.

The NPS will utilize the Interagency Fire Readiness Review Guide, adapted for park-specific needs, to conduct and document the readiness inspection. Trained regional readiness review cadres will be utilized to the extent possible. It is recommended that interested agency administrators and/or staff be used to augment regional readiness review cadres.

Staff from the Fire Management Program Center or the regional fire management officer may conduct on-site fire readiness evaluations at any time at any park.

Accessing WIMS.(http://fire.nifc.nps.gov/webterm/fire.asp) Parks with wildland fire management responsibilities should access WIMS several times daily. Daily access at a minimum should include:

1. Entering of fire weather observations. It is critical that these observations be entered into WIMS by the time requested by the National Weather Service or forecaster.

2. Retrieve and interpret fire danger indices for the area and adjacent stations.

3. National situation summaries and fire danger forecasts are available on WIMS but are more easily accessible on the Internet.

WIMS guidelines or annual agency updates provide specific directions for accomplishing these activities.

Emergency Preparedness Operations. It is neither reasonable nor prudent to program funds annually for the worst possible fire season. Emergency preparedness plans therefore need to be formulated to deal with years with extreme fire seasons or periods of extreme fire danger within "normal" fire seasons. Step-up plans should incorporate specific measures to be taken to provide adequate resources to meet elevated fire danger. Emergency preparedness funds are available to accomplish approved step-up activities when the park is in staffing class 4 or 5.

Severity Assessments/Severity Funding Requests. When parks are expecting to experience long-term extreme fire danger due to drought or other situation which may not adequately be met with routine daily staffing class 4 or 5 preparedness funding, a severity assessment and funding request should be submitted. See Chapter 10, page 6.

Parks requesting severity funding need to complete a written assessment of current and potential situation including a description of mitigating actions and costs and submit to the regional office.

The written assessment needs to address how adjacent land management/protection agencies are addressing the same situation, and to state how the funding will be used in the park. It would be unusual to severity fund a park whose neighbors are not experiencing similar conditions. Emphasis will be given to interagency-coordinated funding requests and implementation plans.

Pre-positioning Resources. Fire management resources may be pre-positioned during periods when staffing classes 4 or 5 are in effect, as described in the approved step-up plan, or when a pre-season risk analysis of expected fire severity indicates that predicted initial and extended attack needs will exceed the park's normal fire year response capability.

Local, geographical area, and national mobilization plans address the pre-positioning of regional resources for effective incident response.

Funding for pre-positioning resources is covered within the emergency preparedness operations accounts.